



Using the Virtual World to Improve Quality of Life in the

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What are the salient characteristics of Virtual Reality?

Immersion



- Physically immerse the participant in a computer-generated space.
- Provide computer-generated sensation to one or more of the human senses.

Visual – Auditory – Olfactory – Haptic – Taste

Interactive and Active



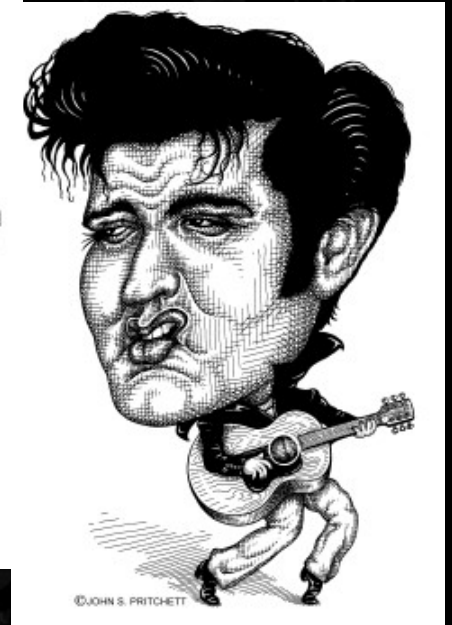
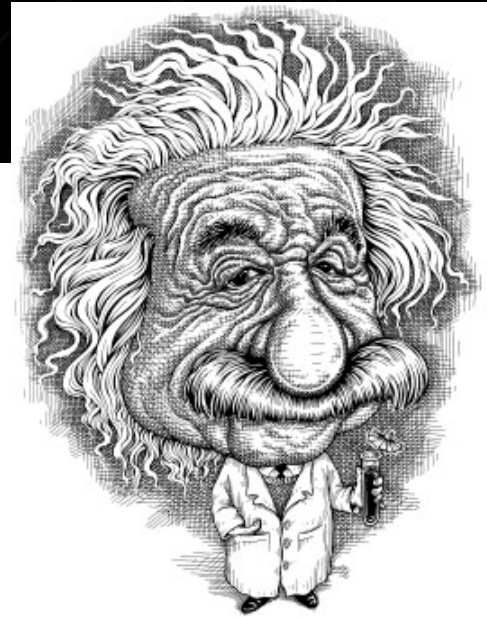
- The virtual environment responds to our presence and actions.
- Events are actively happening in the virtual environment to which we may react.

Cued Gestalt



- We enter the virtual environment carrying the baggage of our beliefs, experiences, fears and expectations.
- What we bring to the VE is as important as what we find.

Approximation



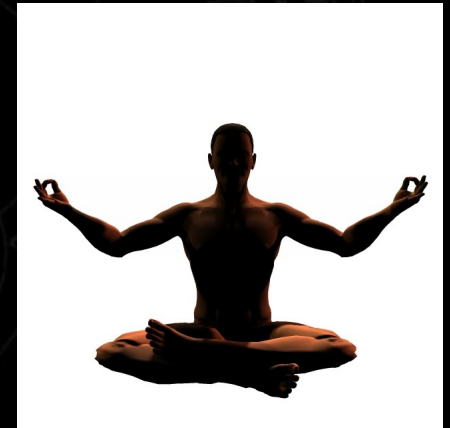
Being better than reality may be an option!

Possibility of Holistic Engagement

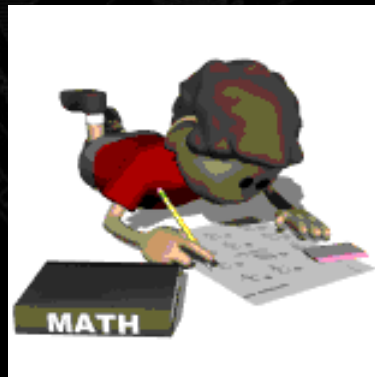
Emotional



Physical



Spiritual



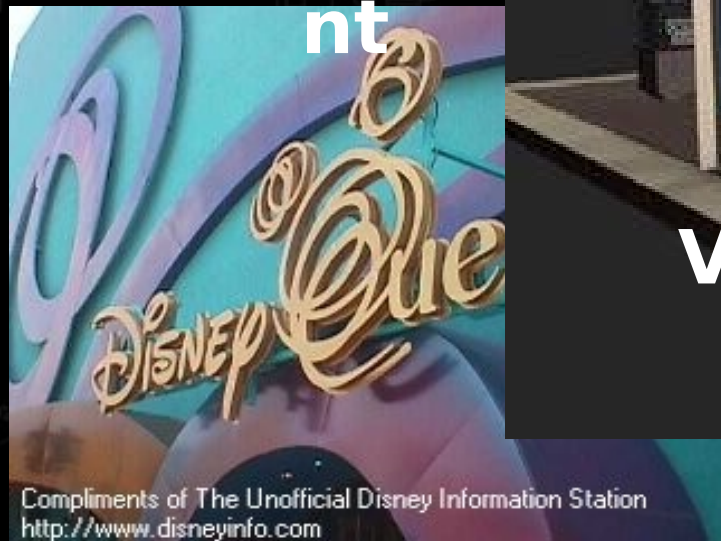
Cognitive



Social

Current Applications of VR

Entertainment



Visualization



& Design

Simulation
& Training



Is this all there is?

**All of these applications are
expensive.**

**Most are specific to relatively
small markets.**

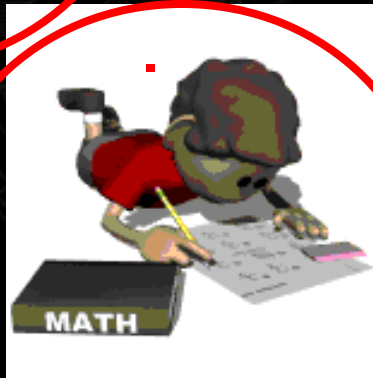
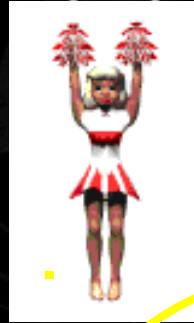
**What are the mass market
applications of Virtual Reality?**

Holistic Engagement



Physical

Emotional



Cognitive



Social



Spiritual

What can we do in a Virtual Environment that . . . Is Useful?

Will be used outside a laboratory?

**Will be used by more than a few hundred
people?**

**Will be used by hundreds of thousands of
people?**

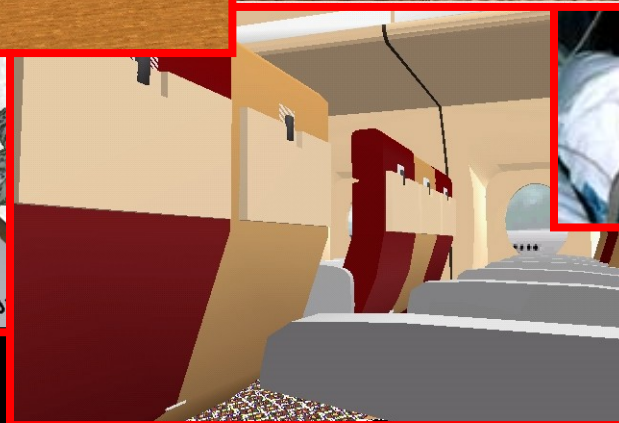
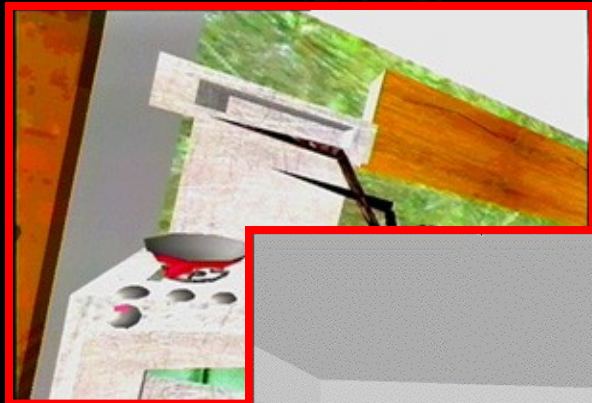
Makes Sense to do in VR?

**Engages the emotion and social aspects of
humans?**

Clinical Virtual Reality



The direct use of VR as a tool in the treatment or assessment of psychological and physical disorders.



Beyond Clinical VR?

Can we design and build a virtual environment that uses visual, audio and tactile cues to create, guide and maintain a participant's guided relaxation and meditation experience?

The Meditation Chamber

Demo at
Emerging
Technologi
es

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Thanks!

**Office of Naval Research
Georgia Tech GVI Center
National Institute of Mental Health**